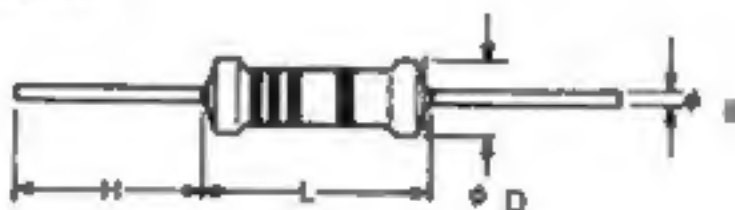


# MINIATURE SIZE METAL FILM FIXED RESISTORS

## INTRODUCTION

1. Miniature size for saving PCB assembly.
2. Manufactured by high vacuum sputtering deposit metal film on high aluminum content ceramic rods.
3. Superior electrical performance and cost comparable to conventional sizes.
4. Standard tolerance :  $\pm 1\%$  (2%, 5% available)

## DIMENSIONS



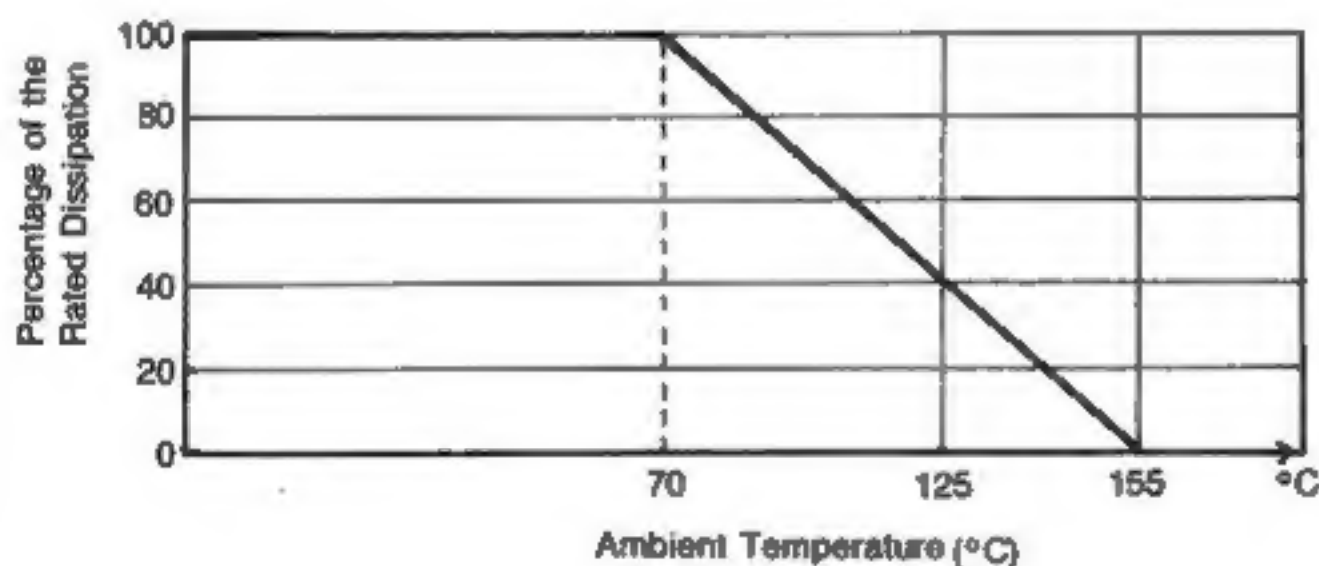
## GENERAL SPECIFICATIONS

STYLE	POWER RATING (W)	DIMENSION (mm)				MAX WORKING V.*	MAX OVERLOAD V.	*RESISTANCE RANGE 1%
	70°C	L	D	H(MIN)	D			
FM0204	0.4W	$3.7 \pm 0.4$	$1.5 \pm 0.2$	27	$0.45 \pm 0.2$	200V	350V	10 $\Omega$ - 1MEG
FM0207	0.6W	$6.5 \pm 0.5$	$2.3 \pm 0.2$	27	$0.56 \pm 0.2$	250V	500V	10 $\Omega$ - 1MEG

\* Max working voltage determined by  $E = \sqrt{PR}$ , E Should not exceed value listed in column above.

\* 5% Range MF0204 2.2 $\Omega$  - 1MEG, MF0207 5.1 $\Omega$  - 4.7MEG

## DERATING CURVE



## CHARACTERISTICS

Requirements	Characteristics	Remarks
Temperature Coefficient	$\pm 50$ PPM	10 - 6/K Mil-STD-202 Metrob 304
Thermal Resistance	$140 \frac{K}{W}$	
Life Stability At 70°C 1000 Hr Max. Resistance Change	0.5%	K Most Umax. 1.5 hr ON 0.5 hr OFF
Dielectric Withstanding Voltage	300 Vr.m.s. for MF0204 500 Vr.m.s. for MF0207	
Insulation Resistance	$> 10^9 M\Omega$	100VDC
Damp Heat Steady State	$\pm 0.5\%$	56 Days At 40°C and 93% Relative humidity at a voltage of 0.1 times rated voltage, Max 16 Volts
Short time Overload	$\Delta R \pm 0.25\%$	2.5 times rated voltage, at most 2 times limiting element voltage (U Max)
Moisture Resistance	$\pm 0.5\%$	
Resistance to Soldering Heat	$\pm 0.25\%$	$350 \pm 5^\circ C$ to 6mm distance from the resistance body in 3 sec.
Temperature Cycling	$\pm 0.5\%$	$-65^\circ C$ to $+155^\circ C$
Low temperature Operation	$\pm 0.25\%$	High frequency, 10-500Hz
Vibration	$\pm 0.25\%$	$-65^\circ C$
Current Noise	Up to $1M\Omega \leq 0.5 \frac{\mu V}{V}$	- 5dB
Solderability	$> 95\%$ Coverage	Dipping in $235^\circ C$ Solder bath for 2.5 sec
Resistance to Solvents	No failure to top coating and color code	